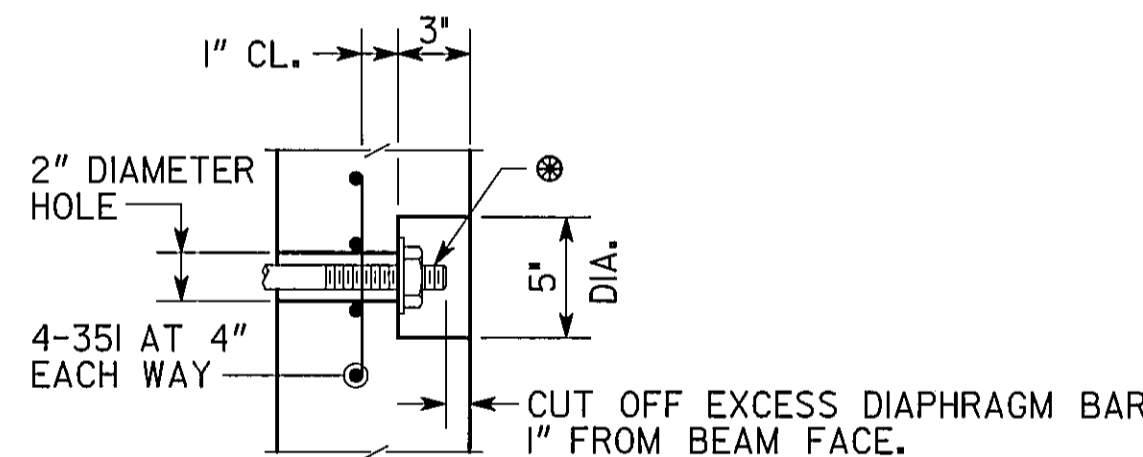


ELEVATION

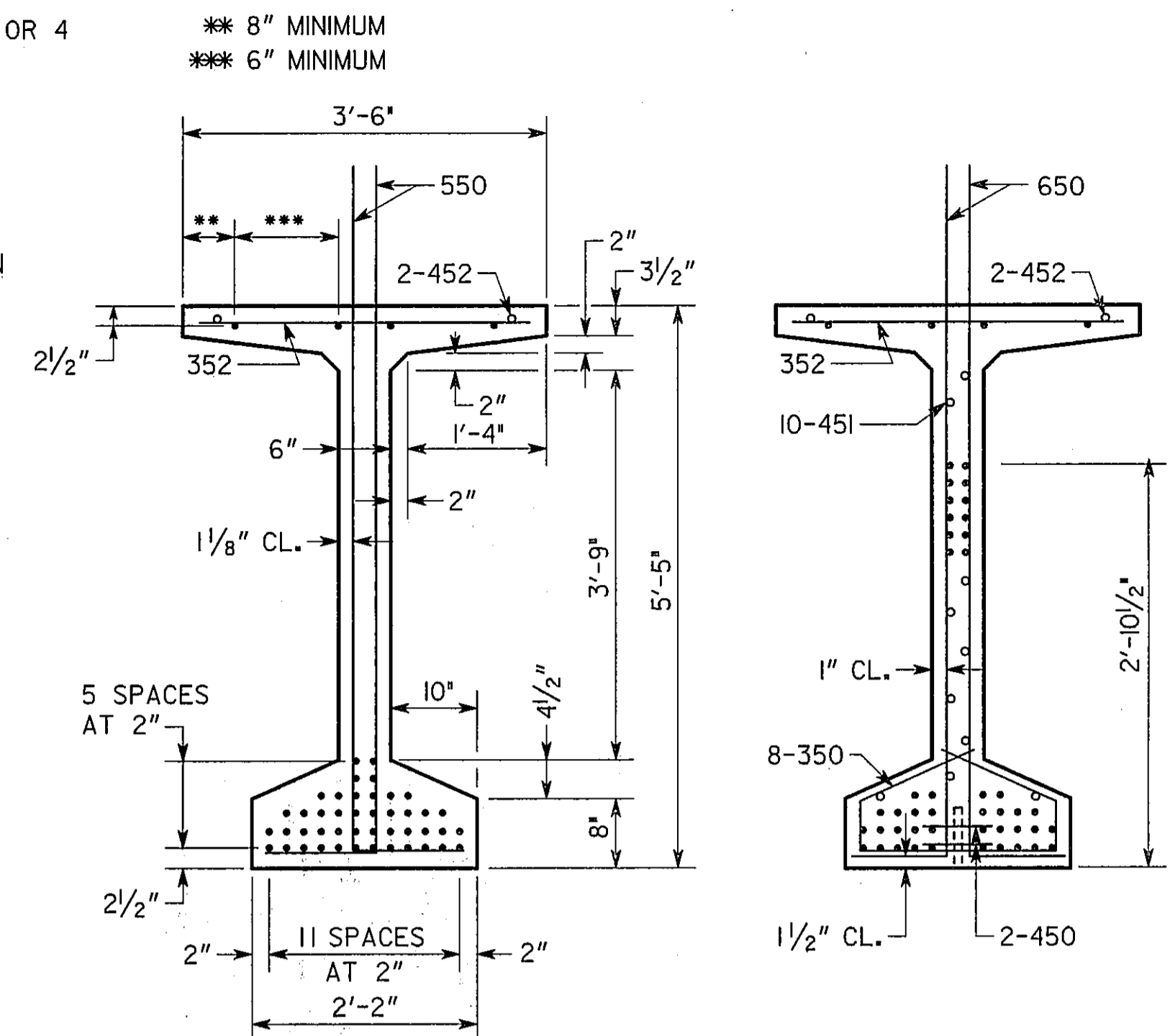
NOTES

- BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- CHAMFER EDGES OF BEAMS 1/2", 3/4" OR 1".
- HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE 1/8" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
- AT CL BEARING, FORM A 1 1/2" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1 1/2" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/4" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
- TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY 1/4". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
- NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
- COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
- STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
- PRESTRESSING DATA IS AS FOLLOWS:
  - USE 48 - 0.6" DIAMETER LOW-RELAXATION ( $A = 0.217$  SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
  - PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 8500 PSI.
  - INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,973,492 LBS.
  - INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,309,128 LBS.
- CONCRETE STRENGTH ( $f'_c$ ) = 9,000 PSI.
- ALLOWABLE PSC BEAM TENSION = 569 PSI.



- ⊗ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).
- DIAPHRAGM BAR SHALL BE TIGHTENED AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.
- AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, END OF DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS SHALL BE PAINTED WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, THE RECESS SHALL BE FILLED WITH AN APPROVED EPOXY GROUT.
- GALVANIZING OF DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

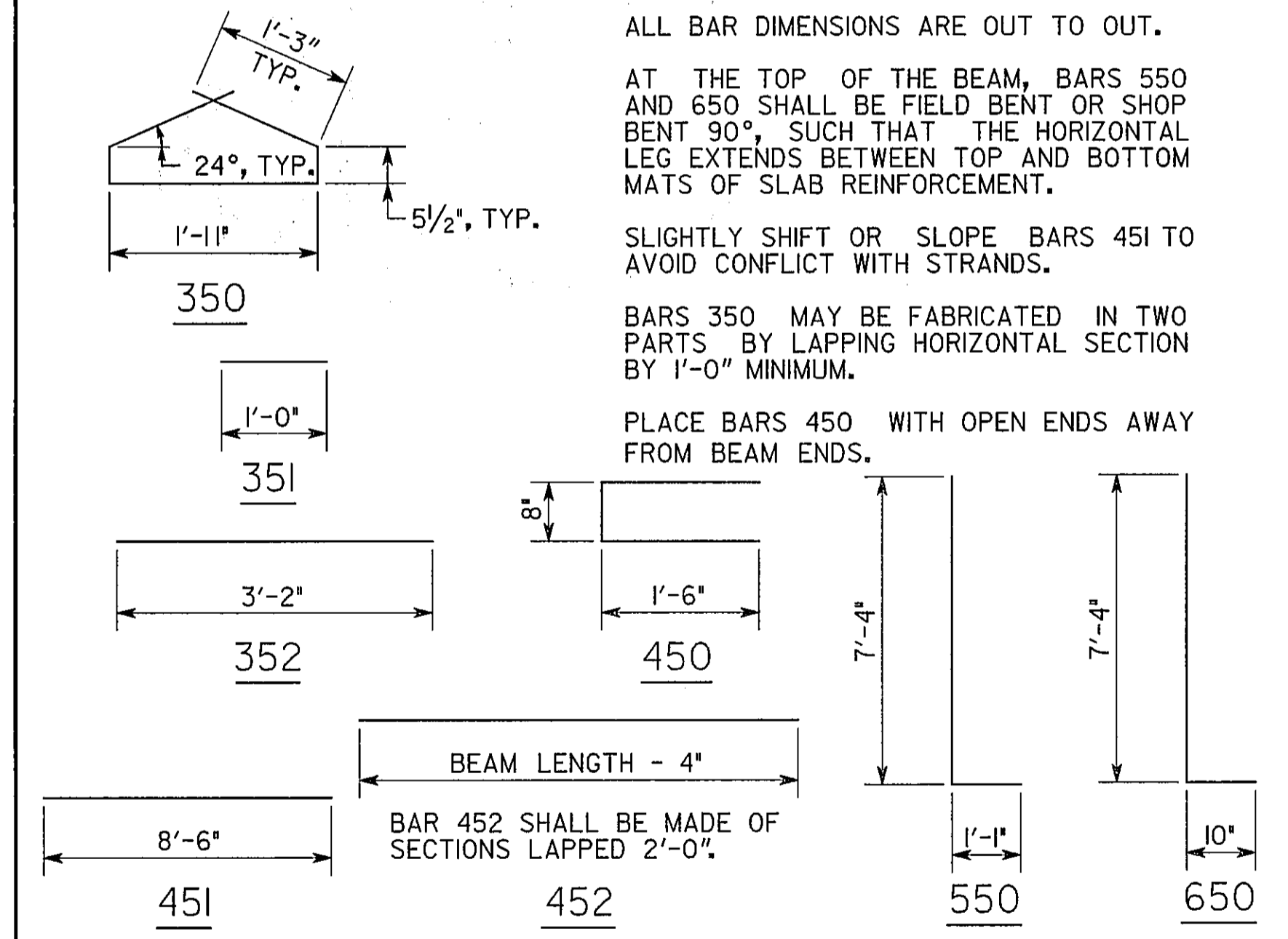


- MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.
- INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.

SECTION AT MIDPOINT

SECTION AT END

REINFORCEMENT



- ALL BAR DIMENSIONS ARE OUT TO OUT.
- AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.
- SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.
- BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.
- PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.

BRIDGE NO. 1

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

BULB TEE, 65 IN PSC BEAM - SPAN 2 OR SPAN 3  
C. R. 84 (UNION CHURCH ROAD)  
OVER PATAULA CREEK  
QUITMAN CO. BRZLB-0239-00(003)

NO SCALE DECEMBER 2009

DRAWING NO.  
35-08  
BRIDGE SHEET  
8 OF 15

DESIGNED	JLM	CHECKED	MLC/EMM	REVIEWED	WEI/WMD
DRAWN	EMM	DESIGN GROUP	RAG	APPROVED	PVL